APPENDIX A

```
>gi 31795107 gb AC005383.2 ED Homo sapiens chromosome 10 clone CIT987SK-1144G6 map 10q25.1, complete
              sequence
            Length = 121774
 Score = 1405 bits (709), Expect = 0.0
Identities = 747/753 (99%), Gaps = 5/753 (0%)
Strand = Plus / Plus
Ouery: 2614 ggattettgagacgeccetgaggcacatggetecegtgcaggaggcagcagcagcegtacec 2673
Sbjct: 76153 ggattettgagacgecettgaggeacatggeteeegtgeaggagggeageegtace 78212
Query: 2674 ctcccagcaactacagagaaggcctgggcactgaaatggtgcctaccttctggaatgtct 2733
Sbjct: 78213 ctcccagcaactacagagaaggcctgggcactgaaatggtgcctaccttctggaatgtct 78272
Query: 2734 gtgccccaggtccttagaatgtctgcttccgccgtggccaggaccactattctcactga 2793
Sbjct: 78273 gtgcccaggtccttagaatgtctgcttccgccqtggccaggaccactattctcactqa 78332
Query: 2794 gggaggaggatgtcccaactgcagccatgctgatgagacaagaaagcagctgatgtca 2853
Sbjct: 78333 gggaggaggatgtcccaactgcagccatgctgctcagagacaagaaagcagctgatgtca 78392
Query: 2914 gctgtgccttgttgaggctatgtcatctgccacctttcccttgaggataaacaaggggtc 2973
Sbjct: 78453 gctgtgccttgttgaggctatgtcatctgccacctttcccttgaggataaacaaggggtc 78512
Query: 3034 gttgttgacacagtaatgcccagcagaggcctttactagagcatcctttggacggcgaag 3093
Shjet: 78573 gttgttgacacagtaatgcccagcagaggcetttactagagcatcctttggacggcgaag 78632

    Query:
    3094
    gccacggcttttcaagatggaaagcagcagcttttcaacttccacagagacattctggat
    3153

    Sbjct:
    78633
    gccacggcttttcaagatggaaagcagcagcttttccacttccccagagacattctggat
    78692

Query: 3214 ttttgtgtgtggaagagacttggaaaggtctcagactg-aatgtgaccaattaaccagct 3272
Sbjct: 78752 ttttgtgtgtggaagagacttggaaaggtctcagactgaaatgtgaccaattaaccagct 78811
Query:3273tggttgatgatgggggggggggggtgagttggc-atgggcccaggtctgga-gggccacgt3330338033803380339133803380339233803380339333803380339433803380339533803380339633803380339633803380339733803380339833803380339933803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380339033803380</t
Score = 1140 bits (575), Expect = 0.0
 Identities = 575/575 (100%)
 Strand = Plus / Plus
Query: 1324 gccctgaagctggagctggaatgcagggtcgacctccttttcctgctggacagctctgcg 1383
Sbjet: 72874 gccctgaagctgagcctggaatgcagggtcgacctcetcttcctgctggacagctctgcg 72933
Ouerv: 1384 ggcaccatttqqacqqtttctqqqqqqcaaaqttttqqtqaaqqqtttqtqqqqcc 1443
```

```
Sbjct: 72934 ggcaccactctggacggcttcctgcgggccaaagtcttcgtgaagcggtttgtgcgggcc
Query: 1444 gtgctgagcgaggactctcgggcccgagtgggtgtggccacatacagcagggagctgctg 1503
Sbjct: 72994 gtgctgagcgaggactctcgggcccgagtgggtgtggccacatacagcagggagctgctg 73053
Query: 1504 gtggcggtgcctgtgggggagtaccaggatgtgcctgacctggtctggagcctcgatggc 1563
Sbjct: 73054 gtggcggtgcctgtgggggagtaccaggatgtgcctgacctggtctggagcctcgatggc 73113
Query: 1564 attcccttccgtggtggcccaccctgacgggcagtgccttgcggcaggcggcagagcgt 1623
Sbjet: 73114 attecetteegtggtggceccaccetgacgggcagtgcettgeggcaggcggcagagegt 73173
Query: 1804 agcccaaagcatgtgatggtctactcgggatcttctaggatctgttcaaccaaatccctgag 1863
Sbjct: 73354 agcccaaagcatgtgatggtctactcggatcctcaggatctgttcaaccaaatccctgag 73413
Query: 1864 ctgcaggggaagctgtgcagccggcaggggcagg 1898
Sbjct: 73414 ctgcaggggaagctgtgcagccggcagcggccagg 73448
Score = 1076 bits (543), Expect = 0.0
Identities = 553/555 (99%), Gaps = 1/555 (0%)
Strand = Plus / Plus
Query: 2015 tgaaccctgacgtgacacaggtcggcctggtggtgtatggcagccaggtgcagactgcct 2074
Sbjct: 75991 tgaaccctgacgtgacacaggtcggcctggtggtgtatggcagccaggtgcagactgcct 76050
Query: 2194
         ccgtccagagggtgcccggcctggtgtccccaaagctgtggtgctcacaggcggga 2253
Sbjct: 76171 ccgtccagaggggtgcccggcctggtgtccccaaagctgtggtggtgctcacaggcggga 76230
Query: 2254 gaggcgcagaggatgcagccgttcctgcccagaagctgaggaacaatggcatctctgtct 2313
Sbjct: 76231 gaggcgcagaggatgcagccgttcctgcccagaagctgaggaacaatggcatctctgtct 76290
Query: 2314 tggtcgtggggcgtggggcctgtcctaagtgagggtctgcggaggcttgcaggtcccggg 2373
```

```
Sbjct: 76291 tggtcgtgggcgtggggcctgtcctaagtgagggtctgcgggaggcttgcaggtccccggg 76350
agtggctgtgtggag 2448
Sbjct: 76411 agtggctgtgtggag 76425
 Score = 626 bits (316), Expect = e-176
 Identities = 316/316 (100%)
 Strand = Plus / Plus

      Query:
      2
      acagtgttcgcggctgcaccgctcggaggctgggtgacccgcgtagaagtgaagtacttt
      61

      Hilling Hilling Hilling Hilling Hilling Hilling Hilling Hilling Hilling
      61

      Sbjct:
      26189
      acagtgttcgcggctgcaccgctcggaggctggtgacccgcgtagaagtgaagtacttt
      26248

             tttatttgcagacctgggccgatgccgctttaaaaaacgcgaggggctctatgcacctcc 121
Query: 62
Sbjct: 26249 tttatttgcagacctgggccgatgccgctttaaaaaacgcgaggggctctatgcacctcc 26308
Query: 122
             ctggcggtagttcctccgacctcagccgggtcgggtcgtgccgccctctcccaggagaga 181
Sbjct: 26309 ctggcggtagttcctccgacctcagccgggtcgggtcgtgccctctcccaggagaga 26368
             Caaacaggtgtcccacgtggcagccgcgccccgggcgcccctcctgtgatcccgtagcgc 241
Query: 182
Sbjct: 26369 caaacaggtgtcccacgtggcagccgcgccccgggcgccctcctgtgatcccgtagcgc 26428
Query: 242
             cccctggcccgagccgcgcccgggtctgtgagtagagccgcccgggcaccgagcgctggt 301
Sbjct: 26429 ccctggccggaccgcgcccgggtctgtgagtagagccccgggcaccgagcgctggt 26488
             cgccgctctccttccg 317
Query: 302
Sbjct: 26489 cgccgctctccttccg 26504
Score = 391 bits (197), Expect = e-105
Identities = 197/197 (100%)
Strand = Plus / Plus
             aggagggcgcacggagacggaacttgctctgaaataccttctgcacagagggttgcctgg 758
Query: 699
Sbjct: 59676 aggagggcgcacggagacggaacttgctctgaaataccttctgcacagagggttgcctgg 59735
Ouerv: 819
             ggatgtggcactgccatccaagcagctgaaggaaaggggtgtcactgtgtttgctgtggg 878
Sbjct: 59796 ggatgtggcactgccatccaagcagctgaaggaaaggggtgtcactgtgttttgctgtggg 59855
```

Score = 335 bits (169), Expect = 4e-88
Identities = 169/169 (100%)
Strand = Plus / Plus

```
Query: 2507 cgtcctgcagaatgggagctaccgctgcaagtgtcgggatggctgggagggccccactg 2566
Sbjct: 77234 cgtcctgcagaatgggagctaccgctgcaagtgtcgggatggctgggagggcccccactg 77293
Score = 272 bits (137), Expect = 5e-69 Identities = 137/137 (100%)
 Strand = Plus / Plus
Query: 891 caggtgggaggagctgcatgcactggccagcgagcctagagggcagcacgtgctgttggc 950
Sbjct: 64847 caggtgggaggagctgcatgcactggccagcgagcctagagggcagcacgtgctgttggc 64906
         tgagcaggtggaggatgccaccaacggcctcttcagcaccctcagcagctcggccatctg 1010
Ouerv: 951
Sbjct: 64907 tgagcaggtggaggatgccaccaacggcctcttcagcaccctcagcagctcggccatctg 64966
Query: 1011 ctccagcgccacgccag 1027
Sbjct: 64967 ctccagcgccacgccag 64983
 Score = 270 bits (136), Expect = 2e-68
Identities = 136/136 (100%)
Strand = Plus / Plus
Query: 1025 cagactgcagggtcgaggctcacccctgtgagcacaggactggagatggtccgggagt 1084
Sbjct: 65652 cagactgcagggtcgaggctcacccctgtgagcacaggacgctggagatggtccgggagt 65711
Query: 1085 tcgctggcaatgccccatgctggagaggatcgcgggacccttgcggtggctgcac 1144
Query: 1145 actgtcccttctacag 1160
Sbjct: 65772 actgtcccttctacag 65787
Score = 270 bits (136), Expect = 2e-68 Identities = 136/136 (100%)
Strand = Plus / Plus
Query: 515
Query: 575
         tcagccccgagagggt 590
         Sbjct: 41971 tcagcccgagagggt 41986
```

```
Score = 220 bits (111), Expect = 2e-53
Identities = 111/111 (100%)
 Strand = Plus / Plus
           ggtcagagtgggagcattccagttcagttccactcctcatctggaattccccttggattc 647
Query: 588
Sbjct: 48121 ggtcagagtgggagcattccagttcagttccactcctcatctggaattccccttggattc 48180
Score = 218 bits (110), Expect = 7e-53
Identities = 110/110 (100%)
 Strand = Plus / Plus
Query: 1215 aggcccctgtgactcgcagccctgccagaatggaggcacatgtgttccagaaggactgga 1274
Sbjet: 71797 aggcccctgtgactcgcagccctgccagaatggaggcacatgtgttccagaaggactgga 71856
Score = 153 bits (77), Expect = 3e-33
Identities = 77/77 (100%)
Strand = Plus / Plus
Query: 378 agtgccccatctctccctctccaggaagtccatgtaagcaaagaaaccatcgggaagat 437
Sbjct: 40585 agtgcccccatctctccctctccaggaagtccatgtaagcaaagaaaccatcgggaagat 40644
Query: 438 ttcagctgccagcaaaa 454
Sbjct: 40645 ttcagctgccagcaaaa 40661
Score = 117 bits (59), Expect = 2e-22 Identities = 59/59 (100%)
Strand = Plus / Plus
Score = 117 bits (59), Expect = 2e-22 Identities = 62/63 (98%) Strand = Plus / Plus
Query: 377 gag 379
Sbjct: 35699 gag 35701
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